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January 31, 2019

VIA, ELECTRONIC FILING

The Honorable Jocelyn Boyd
Chief Clerk and Administrator
The Public Service Commission of South Carolina
101 Executive Center Drive
Columbia, South Carolina 29210

Re:
- **Docket 2018-8-E** Duke Energy Progress, LLC's Integrated Resource Plan (IRP)
- **Docket 2018-10-E** Duke Energy Carolinas, LLC's 2018 Integrated Resource Plan (IRP)
- **Comments**

Ms. Boyd:

These Comments are provided on behalf the South Carolina Solar Business Alliance, Inc., ("SCSBA"). I respectfully request that the Commission consider these Comments in Docket 2018-8-E and Docket 2018-10-E.

SCSBA Introductory Comments

SCSBA respectfully submits for this Commission's consideration an analysis of the 2018 Integrated Resource Plans ("IRPs") filed by Duke Energy Carolinas and Duke Energy Progress (collectively, "Duke"). As noted in the SCSBA's November 16, 2018 request for extension of the comment period, the SCSBA believes this analysis will materially aid in this Commission's final review and consideration of these plans, as well as all other Dockets that rely on conclusions from these plans to justify the prudency of proposals directly impacting the solar industry and ratepayers in South Carolina, such as proceedings focused on rate recovery, avoided cost, and grid modernization proposals.

Consistent with recommendations from the most recent South Carolina State Energy Plan, the SCSBA maintains that industry best practices require electric utilities to consider, in developing their IRPs, reasonable portfolio alternatives that could better insulate customers from investment risk and rising electricity rates. As evidenced by the attached report, Duke has fallen short of that standard.

This analysis underscores concerns surrounding the planning decisions being made by Duke, which foretell an energy future for South Carolina that is inconsistent with current trends shaping the energy industry. With a heavy reliance on natural gas and other traditional generating resources, the plans fail to account for cost-effective clean energy alternatives to the increasingly uneconomic operations of Duke's existing coal plants. For example, Duke's IRPs call for an additional build out of over 9,000 MW of new natural gas plants, but less than 5,000 MW of new renewables (namely solar PV and battery storage), from 2019 to 2033. But especially with the advent of viable battery storage technologies, renewable resources can satisfy a far larger portion of the Duke's energy and capacity needs at a lower economic and environmental cost.

The following report details a rigorous, scenario-based analysis of alternative energy resource plans for Duke Energy. It details a realistic clean energy future that provides both the energy and capacity to meet the needs of Duke's customers, while effectively meeting future reliability requirements as traditional generating resources are retired. The report was prepared by Synapse Energy Economics, a leading energy, economic, and environmental consulting firm whose clients include state utilities commissions, RTO/ISOs, local governments, and governmental associations including the National Association of Regulatory Utility Commissioners (NARUC). The report was prepared using the EnCompass capacity expansion and production cost model, which is widely used for integrated resource planning and other forecasting and analytical purposes.

Key Takeaways:

- Duke's projected 2033 resource mix includes 56% (23 GW) fossil fuels, equal to its 2018 resource composition, and just 23% (11 GW) of renewables.
- In the Clean Energy Scenario set forth in the attached report, by 2033 gas and coal would compose 32% of Duke's capacity mix, while renewable resources, including solar PV and battery storage, would make up 49.5% (with existing nuclear, hydro, and energy efficiency making up the rest).

- Duke acknowledges that its current IRP development tools are incapable of modeling the full value of renewable and distributed energy resources, including storage. The Synapse model, by contrast, is capable of more accurately evaluating the costs and benefits of these resources.
- Duke's proposed IRP adds renewables only in amounts sufficient for the utility to comply with minimum legislative requirements, whereas the Clean Energy Scenario details how Duke can build more renewables at lower cost than traditional resources.
- The IRP's must-run designations force coal plants to operate regardless of optimal cost considerations and require high levels of coal generation in 2033. When must-run designations are removed, economic signals dictate that coal generation drops significantly.
- Total production costs of a Clean Energy Scenario are far cheaper than under the proposed IRP. With the removal of must-run designations and the build out of cheaper renewable resources, total production costs of a Clean Energy Scenario are over $1 billion less than the proposed IRP.
- By 2033, Duke's plan emits 49 million tons of CO2 annually, while the Clean Energy Scenario emits only 18.2 million tons.
- The Clean Energy Scenario provides significant health and cost savings to the people of South Carolina due to the increased utilization of existing low-pollutant nuclear and renewable resources to generate in the place of coal. By 2033, South Carolina residents could see up to $354 million in avoided health impacts due to a decrease in hospital room visits and lost work days.
- South Carolina ratepayers can expect to save between .25 cents/kWh and .51 cents/kWh through 2033, leading to a decrease in average annual electricity spending throughout the study period of five to eleven percent.

The Synapse report clearly demonstrates that the Duke IRPs have significant limitations and at the very least fail to adequately consider a full range of scenarios with respect to the economic dispatch of coal units and the deployment of additional renewable and distributed energy resources. Accordingly, the SCSBA submits that in future proceedings (including avoided cost and those related to grid modernization), Duke should not be allowed to simply rely on its IRP without having to demonstrate, using competent evidence, that its proposed resource plans are reasonable and appropriate in light of the alternatives.

Respectfully Submitted,
AUSTIN & ROGERS, P.A.

/**s**/Richard L. Whitt,
Richard L. Whitt,
As Counsel for The South Carolina
Solar Business Alliance, Inc.

RLW/cas

cc: All Parties of Record in Docket 2018-8-E, *via, electronic mail*
All Parties of Record in Docket 2018-10-E, *via, electronic mail*